

Abstract

A method for analyzing properties of a sample by measuring fluorescence parameters in multiple foci, comprises the steps of splitting a collimated primary laser beam with a splitting device into at least two collimated secondary laser beams and deflecting the secondary laser beams such that they propagate at different propagation angles with respect to an optical axis of a focussing optic, focussing the secondary laser beams with the focussing optic into at least two volume elements in the sample, detecting light emitted from the volume elements with a detecting device, and evaluating the detected light for obtaining the properties to be analyzed. Furthermore, a device for implementing this method is described. The invention is particularly suited for high-throughput screening applications.